

IN THE CLAIMS:

Please amend the claims as follows:

1. (Amended) A silicoaluminophosphate molecular sieve comprising a surface ~~heat-impregnated with~~ containing a heat decomposition product of a metal acetate, metal nitrate, metal sulfate, metal halide, or mixtures thereof, wherein the metal in the heat decomposition product is selected from the group consisting of ~~Group IIA metals, Group IIIA metals,~~ Group IB metals, Group IIB metals, ~~Group IIIB metals, Group VIIB metals, Group VB metals, Group VIB metals, Group VIIIB metals~~ Group VIIIB metals, and mixtures thereof, and the silicoaluminophosphate molecular sieve exhibits an increase in ethylene or propylene selectivity relative to a silicoaluminophosphate molecular sieve without the heat decomposition product.

2. (Original) The silicoaluminophosphate molecular sieve of claim 1 wherein the silicoaluminophosphate molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, the metal containing forms thereof, and mixtures thereof.

3. (Original) The silicoaluminophosphate molecular sieve of claim 2 wherein the silicoaluminophosphate molecular sieve is selected from the group consisting of SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, and mixtures thereof.

4. (Amended) The silicoaluminophosphate molecular sieve of claim 3 wherein the silicoaluminophosphate molecular sieve is selected from the group consisting of SAPO-~~34A~~18, SAPO-34~~B~~, and ``mixtures thereof.

5. (Original) The silicoaluminophosphate molecular sieve of claim 1 wherein the silicoaluminophosphate molecular sieve comprises 0.5 to 40 percent by weight of the metal.

6. (Original) The silicoaluminophosphate molecular sieve of claim 5 wherein the silicoaluminophosphate molecular sieve comprises 1 to 20 percent by weight of the metal.

7. (Original) The silicoaluminophosphate molecular sieve of claim 6 wherein the silicoaluminophosphate molecular sieve comprises 1 to 10 percent by weight of the metal.

8. (Amended) The silicoaluminophosphate molecular sieve of claim 1 wherein the metal is selected from the group consisting of ~~aluminum, magnesium, calcium, barium, lanthanum, titanium, chromium~~ iron, cobalt, ~~nickel~~ copper, zinc, and mixtures thereof.

9. (Original) The silicoaluminophosphate molecular sieve of claim 8 wherein the metal is copper, zinc, or a mixture thereof.

10. (Original) The silicoaluminophosphate molecular sieve of claim 9 wherein the molecular sieve comprises the metal of 1 to 20 percent by weight based on the total weight of the molecular sieve.

11. Canceled.

12. (Original) The silicoaluminophosphate molecular sieve of claim 1 wherein the surface is heat impregnated with the metal at a temperature from 30°C to 400°C.

13. (Original) The silicoaluminophosphate molecular sieve of claim 12 wherein the surface is heat impregnated with the metal at a temperature from 120°C to 260°C.

14. (Original) The silicoaluminophosphate molecular sieve of claim 13 wherein the surface is heat impregnated with the metal at a temperature from 160°C to 220°C.

15. (Amended) A silicoaluminophosphate molecular sieve catalyst comprising:

silicoaluminophosphate molecular sieve having a surface heat impregnated with a heat decomposition product of a metal acetate, metal nitrate, metal sulfate, metal halide, or mixtures thereof, wherein the metal in the heat decomposition product is selected from the group consisting of ~~Group IIA metals, Group IIIA metals, Group IB metals, Group IIB metals, Group IIIB metals, Group VIB metals, Group VB metals, Group VIB metals, Group VIIB metals, Group VIIIB metals,~~ and mixtures thereof, wherein the silicoaluminophosphate molecular sieve exhibits an increase in ethylene or propylene selectivity relative to a silicoaluminophosphate molecular sieve without the heat decomposition product; and

a binder.

16. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 15 wherein the silicoaluminophosphate molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, the metal containing forms thereof, and mixtures thereof.

17. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 16 wherein the silicoaluminophosphate molecular sieve is selected from the group consisting of SAPO-18, SAPO-34, SAPO-35, SAPO-44, SAPO-47, and mixtures thereof.

18. (Amended) The silicoaluminophosphate molecular sieve catalyst of claim 17 wherein the silicoaluminophosphate molecular sieve is selected from the group consisting of SAPO- ~~34A~~18, SAPO-~~34B~~ and mixtures thereof.

19. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 15 wherein the silicoaluminophosphate molecular sieve comprises 0.5 to 40 percent by weight of the metal.

20. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 19 wherein the silicoaluminophosphate molecular sieve comprises 1 to 20 percent by weight of the metal.

21. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 20 wherein the silicoaluminophosphate molecular sieve comprises 1 to 10 percent by weight of the metal.

22. (Amended) The silicoaluminophosphate molecular sieve catalyst of claim 15 wherein the metal is selected from the group consisting of ~~aluminum, magnesium, calcium, barium, lanthanum, titanium, chromium~~ iron, cobalt, ~~nickel~~ copper, zinc, and mixtures thereof.

23. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 22 wherein the metal is copper, zinc, or a mixture thereof.

24. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 23 wherein the molecular sieve comprises the metal at 1 to 20 percent by weight based on the total weight of the molecular sieve.

25. Canceled.

26. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 15 wherein the surface is heat impregnated with the metal at a temperature from 30°C to 400°C.

27. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 26 wherein the surface is heat impregnated with the metal at a temperature from 120°C to 260°C.

28. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 27 wherein the surface is heat impregnated with the metal at a temperature from 160°C to 220°C.

29. (Original) The silicoaluminophosphate molecular sieve catalyst of claim 15 wherein the binder is selected from the group consisting of alumina, aluminum chlorhydrol, clay, and mixtures thereof.

30-53. Canceled.

54. (Newly Added) The silicoaluminophosphate molecular sieve catalyst of claim 1, wherein the silicoaluminophosphate molecular sieve exhibits at least a 10% increase in ethylene or propylene selectivity relative to a silicoaluminophosphate molecular sieve without the heat decomposition product.

55. (Newly Added) The silicoaluminophosphate molecular sieve catalyst of claim 15, wherein the silicoaluminophosphate molecular sieve exhibits at least a 10% increase in ethylene or propylene selectivity relative to a silicoaluminophosphate molecular sieve without the heat decomposition product.